

Vol. 36

No. 6

GATEWAY TO EXCELLENCE

June 1999

# ST. LOUIS ARMY ENGINEER DIST **ESPRI**

## In this issue...

**Old Glory**  
... page 2

**Kennewick Man**  
... page 5

**Quigley runs**  
... page 6

**FUSRAP**  
... page 7

**Simulator**  
... page 8

**Bees are back**  
... page 10

**Cottonmouth**  
... page 11

**LM and LAIET**  
...page 12

**Diverticulosis**  
... page 14

## FEB award winners

At the recent Federal Executive Board awards ceremonies 33 agencies presented 182 nominations. The St. Louis District nominated nine; six teams and three individuals. Our nominations were: The CEOP Committee, Wappapello Lake Project Team, Federal Inmate Program Working Group, Curation Team, FUSRAP Team, Power Plant Annual Maintenance Team, Earl Traynor, Joan Stemler and Thomas Ruf. Joan Stemler and Earl Traynor, received awards.

Joan Stemler, ED-HP, as the senior water control technician, has helped create thousands of acres of wetlands while maintaining a safe and dependable navigation channel. She has received conservationist and restoration awards from customers and a hammer award. Now she has a FEB award in the Administrative and Technical category to go with the rest.



Earl Traynor, Shift Leader at Lock and Dam 24, won in the Trades and Crafts category for his relief work in Puerto Rico after the devastation of Hurricane Georges, as well as his performance of duties at the lock and dam.

Congratulations to Joan and Earl for the great work that led to their recognition by the Federal Executive Board of St. Louis.



## Flag Day, June 14: Old Glory's mysterious origins

Even today, who actually designed the U.S. Flag remains open to historical speculation.

In January 1776, General George Washington organized the Continental Army and raised a flag with red and white stripes. But it featured the Union Jack in the upper left.

The Continental Congress adopted the 13-star, 13-stripe flag on July 4, 1777. The flag resolution gave credit to no particular person or persons for its design.

Scholars say Betsy Ross sewed the first flags, but her only influence on its design was to get Congress to abandon the six-pointed star. With a snip of her scissors, she reportedly demonstrated how much easier it was to make five-pointed stars, which then came to rest on the field of blue.

In 1780, Francis Hopkinson, a signer of the Declaration of Independence, asked Congress for a quarter of a cask of wine for having suggested patterns and designs for the flag. Congress denied his request because others had also worked on the project.

Still, many historians believe that Hopkinson originated the design of the first stars and stripes in which the 13 stars are in a "staggered" pattern. This pattern was used thereafter whenever the number of stars lent itself to it.

"The Star Spangled Banner" with 15 stars and 15 stripes flew over Fort McHenry in Baltimore the night of September 13-14, 1813. It inspired Francis Scott Key to write the song that became the U.S. national anthem.

In the 1800s, some flags carried a white eagle among the stars. And during the Civil War, gold stars were more common than white ones.

Finally, in 1912, with the stars numbering 48, exact standards of design were set forth by President William Howard Taft. Even more precise specifications were drawn up to define the 49-star flag in 1959 and the 50-star flag in 1960.

All who contributed to the development of Old Glory can be proud of what it has represented for almost two and a quarter centuries.



### St. Louis District Employee of the Month

The Employee of the Month for June is Douglas Nichols, a park ranger at Wappapello Lake.

During record inflows into Wappapello Lake the first weekend in April, Doug averted what could have been a public relations nightmare. He coordinated with upstream and downstream customers, evacuated Old Greenville Campground, and was there when needed on his own time. The lake jumped 25 feet over the weekend, but thanks to Doug's leadership and ability to maintain composure under adverse conditions, and a real team effort, a potential crisis was averted.

Congratulations to Doug Nichols, June Employee of the Month.



**US Army Corps  
of Engineers**  
St. Louis District

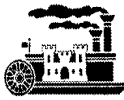
ESPRIT is an unofficial publication authorized under the provisions of AR 360-81. It is published monthly, by contract, in 1450 copies, by the Public Affairs Office, U.S. Army Engineer District, St. Louis. Views and opinions expressed in this publication are not necessarily those of the Department of the Army.

District Commander.....Thomas J. Hodgini

Chief, Public Affairs.....Sandra Clawson

Editor, Design, Layout.....Ken Kruchowski

Address mail to: U.S. Army Engineer District, St. Louis, ATTN: CEMVS  
- PA, 1222 Spruce, St. Louis, MO 63103-2833. Phone: (314) 331-8000.  
E-mail: Sandra.Clawson@mvs02.usace.army.mil



---

## News Briefs

---

### Rend Lake:

#### **Rend aerial photos**

Aerial photographs of the Rend Lake Project are now accessible on-line at [terraserver.microsoft.com](http://terraserver.microsoft.com). Digital Orthophoto Quadrangle (DOQ) maps are aerial photos of Rend Lake that were taken at an altitude of 12,000 feet. The photos provide on-line viewers an excellent perspective of land and water features of Rend Lake. The Terraserver photos cover approximately 80% of the project with a promise that remaining 20% will be accessible on-line within the next year.

Digital aerial photographs have a variety of uses, and are presently being used as a tool for the resource program when planning their wildlife management strategies. Digital Orthophoto Quadrangles may also be purchased on CD-rom from the United States Geological Survey.

#### **Hunter safety**

The Rend Lake Project Office, in conjunction with the Illinois Department of Natural Resources, held a Hunter Safety Class at the Rend Lake Visitor Center on April 1 and 2. The 45 students ranging in age from 7 to 77 learned the basics of gun handling, safety around the water, wildlife identification and developing proper ethics when handling a firearm.

The Rend Lake Project Office holds two of the 10-hour courses throughout the year. The second Hunter Safety course is scheduled for July 24 and 25, 1999 and will be held at the Rend Lake Visitor Center. Pre-registration is required.

#### **Kovarik lauded**

Dawn Kovarik, Park Ranger at Rend Lake, recently received recognition from the Illinois Department of Natural Resources for her 10-year contribution of time and effort toward promoting safety in Illinois. Kovarik has been a volunteer instructor for both the Hunting and Boating Safety Programs for the past 10 years. In addition, she has served as a master instructor for the Franklin county area for the past 8 years. As master instructor, Ms. Kovarik is responsible for scheduling and coordinating safety classes in the Franklin county area.



**Dawn explains how a beehive works.**

For her efforts in promoting safety, she received an Illinois Department of Natural Resources belt buckle and a Certificate of Appreciation.

#### **Roderick move**

Rend Lake Park Ranger Mark Roderick has accepted a temporary developmental assignment with USACE-HQ. Ranger Roderick has been tasked with the duty of coordinating the completion of the National Recreation Reservation Sys-

tem Users Manual, working with the national committee chairs and the national contractor, ReserveAmerica. This 6-month assignment will also include obtaining input from other management team members for specific sections of the manual, coordinating distribution of the manual to field offices, researching regulations specific to ReserveAmerica operations, revision of Corps regulations to reflect the National Recreation Reservation System procedures, and drafting responses for congressional inquiries. Mark will also serve as the nationwide troubleshooter for technical questions and operation procedures associated with this nationwide reservation system.

#### **Earth Day**

More than 4,000 area school children, representing 35 schools, and more than 50 volunteers participated in the 10th annual Earth Day celebration at the Visitor Center. Resource personnel from 30 local, state and federal agencies, as well as concerned citizens, provided programs. Nature hikes and other hands-on activities were scheduled throughout the day.



**Park Ranger Janet Mifflin entertains a class at the Earth Day celebration with a reptile program.**





## **News Briefs (cont.)**

### **Carlyle Lake:**

#### **Earth Day**

About 1000 students and their teachers attended Carlyle Lake's tribute to Earth Day April 30. Eighteen stations featuring environmental education programs were available to students. Lecturers were chosen who best reflected the day's theme.

#### **Corkey a hit**

Corkey the boat was a big hit attending schools in the Carlyle area. Pre-K and Kindergarten through 4th grade students got Corkey's water safety message. Corkey also visited two area WalMarts.

#### **Boat safety class**

Carlyle Lake will be presenting an IDNR certification class for Boat Safety. There will be two classes, on June 16 and July 22 from 8 a.m. to 4:30 p.m. Persons at least 12 years old and less than 18 may operate a motorboat only if they are accompanied on the boat and under direct control of a parent or guardian, or they must have a boating safety certificate. Interested individuals may contact the Project Office.

#### **Chiles leaving**

Park Ranger Rich Chiles, who has been at the lake since 1996, has accepted a position at Harry S. Truman Lake on June 20. Good luck to Rich and his family.

### **Mark Twain Lake:**

#### **Turkey hunt**

Thanks to members of the Paris Lions Club, 17 physically challenged hunters had the opportunity to try to harvest a gobbler this turkey season. The hunt is cosponsored with the U.S. Army Corps of Engineers at Mark Twain Lake and the Lions Club of Paris, Missouri.

Weeks before the hunt Park Rangers and Lions Club volunteers scout for turkeys and get blinds ready. During the hunt, volunteers transport hunters to and from blinds, fetch downed birds, and take the hunters lunch. That is the only difference between this and a "regular" hunt. There are no special regulations for these hunters.



Three hunters were successful, making the event a tremendous success. For the hunters, their families, and the volunteers the rewards go beyond numbers of turkeys taken. The opportunity to see wildlife, to experience nature at its best and the camaraderie around a campfire will keep them coming back.

More than 30 volunteers provided more than 300 hours of service to the 1999 Turkey Hunt for the Physically Challenged. Many

thanks go to the Paris Lions Club and Park Ranger Shelly Howald who coordinates this event for the U.S. Army Corps of Engineers.

### **Wappapello Lake:**

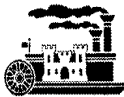
#### **Waterfest '99**

On 3-4 July 1999, Ranger Willie's Wet'n Wild Waterfest '99 will be held at the Redman Creek Beach. This year's event will take in some new activities which include a Bicycle Rodeo, Canoe Race, Inner Tube Race, Life Jacket Race, Cardboard Boat Race, Jet Ski Safety Seminar and an American Red Cross Swimming Survival Technique Seminar. There will be two categories one will be for family and friends and the other for Agencies, Organizations and Companies. In addition to the new games, some of the old favorites will be played such as the Water Balloon Toss, Beanbag Toss, Blind Water Balloon Volley, Watermelon Eating Contest (Saturday only), Scavenger Hunt and Sand Sculpture Contest (Sunday only). There will also be a Puppet Show and a PFD Fashion Show each day. Many prizes will be given away. Again this year the Use-Fee will be waived at this beach for those two days. So come on out and enjoy the Holiday weekend with family and friends at Waterfest 99'.

#### **4th of July festival**

On 3-4 July 1999, the Wappapello Volunteer Fire Department will be hosting the 4th of July Festival at the Wappapello Lake Bill Emerson Memorial Visitor Center. Events will include games, concession, classic car show, antique trac-

(Continued on page 9)



# The saga of Kennewick Man

On July 28, 1996, Will Thomas, a spectator at the annual hydroplane races on the Columbia River in Kennewick, Washington, made a discovery that has had a profound impact on Corps of Engineers Native American Graves Protection and Repatriation Act (NAGPRA) policies and curation procedures. He found a human



Chris Pulliam (left) and Sonny Trimble transport Kennewick Man to the Burke Museum.

skull while wading in the river. After the race he turned the skull over to a local police officer. Had there been a fatal accident? Or maybe a homicide?

More bones were found scattered along a 60 foot section of shore. In all, almost an entire skeleton was recovered. But this was no police problem. Preliminary analysis and carbon dating indicated the bones may be over 8,000 years old, making those remains one of the oldest complete skeletons ever found in North America.

Early studies of Kennewick Man, as the remains came to be known, revealed this to be a man over 5 feet tall, who lived to be about 45 years old. He carried a two inch stone spear point in his hip. But he did not let this stop him.

Kennewick Man posed a problem for the Corps of Engineers. Since his remains were found on land under the jurisdiction of the Walla Walla District, the District took over care of the remains. From September 1996 to October 1998 the remains were kept at the Pacific Northwest National Laboratories in a secure building. Controversy raged over what should be done with them. Northwest Native American tribes wanted to rebury the remains, while scientists from around the country clamored for the right to study them. Eight scientists filed a lawsuit to try to gain access to the remains.

In October 1997, the Corps' Director of Civil Works, Major General Russell L. Fuhrman, directed Dr. Michael "Sonny" Trimble, Chief of the Curation and Archives Analysis Branch in the St. Louis District, to personally evaluate what should be done to properly curate the Kennewick Man remains. Dr. Trimble heads up the Corps' Center of Expertise for the Curation and Management of Archaeological Collections (MCX-CMAC), headquartered in St. Louis District.

Following Trimble's review of the Kennewick Man remains, several recommendations were made and approved by MG Fuhrman: (1) The

remains should be inventoried, (2) the remains should be rehoused, and (3) the remains should be housed in a professional museum.

Early in November 1997, the remains were inventoried and packed for storage, and an archive was begun to document the collection. In June 1998, a Federal Court ordered the remains to be taken to the Thomas Burke Museum at the University of Washington in Seattle, where they would be stored. The remains were carefully inventoried by Dr. Trimble and his staff, with the assistance of professional conservators, the plaintiffs in the lawsuit and the concerned Native American Indian tribes. The remains were transported to the Burke Museum in October.

In order to facilitate access to the remains for study, the collection was rehoused in February 1999. Dr. Trimble and two professional conservators developed the rehousing method. Over a four-day pe-



Interior of one of the custom made boxes.

riod, a team comprised of museum professionals from the Burke Mu-

(Continued on page 6)



## Kennewick (cont.)

seum, conservators from the Arizona State Museum and the University of Nevada, and members of the MCX-CMAC completely rehoused the remains. This entailed creating custom made boxes.

The boxes were fitted with archival padding material. Each bone had its own precut, numbered place in the archival padding in specific boxes. Specially designed padding was created and used to keep the bones in place. This is the first time this method for rehousing curation of archaeological artifacts has been employed.

In early 1999 the National Park Service (NPS) hired five scientists, including Dr. Julie Stein, curator of

Archaeology at the Burke Museum, to study the remains. The St. Louis District MCX-CMAC continues to assist.

The NPS will release its report of finding of the first phase of analysis in June 1999. Further analysis may be required to determine the cultural identity of the remains. The Corps of Engineers is still responsible for the care of Kennewick Man at least until the disposition of the law suit.



Custom boxes ready for storage.

# Quigley runs the Boston Marathon

Tom Quigley, in Design Branch, realized a dream this spring. He ran in perhaps the elite of all races, the Boston Marathon.

It all began about 12 years ago when Tom began running to get in shape. But he found running addictive, and soon getting in shape was no longer the goal. He wanted to run in a marathon. He had planned to run in one, but now, with the Boston behind him, he has run in 14.

You don't just enter the Boston Marathon. You have to qualify for it. Qualifying time for a male Tom's age (he's 50) is three hours and 30 minutes. His best was three hours and 40 minutes. But he finally found a way. A charities category allows runners to enter the race without qualifying if they raise money for certain charities by running. Quigley was one of 40 run-

ners doing their part for the American Red Cross of Massachusetts Bay.



Quigley runs the Marine Corps Marathon in 1998.

There were so many runners who started ahead of him, that he was still walking well past the start line. Not good for one's time. According to Tom, "There was absolutely nowhere to go. It was like that for the first three miles." By the time he got to the three mile mark, where he could finally start running at his normal pace, he had already chewed up about 44 minutes.

He finished 8,666 out of 11,293 runners and feels pretty good about that. A quarter of the runners finished behind him.

We congratulate Tom for his achievements pounding the pavement. His dedication to running serves as an inspiration to all of us. Perseverance will help us achieve our goals, whatever they may be.

"It was the adventure of a lifetime for me," Tom says. "I will never forget it and I think I am purchasing every souvenir they ever made."





# FUSRAP starts new business practices

FUSRAP Project Office implements new Project Management Business Practices

By Lou Dell'Orco, FUSRAP Team

PM-R, ED-P, CO-CF, and ED-HG have successfully implemented a project office, a new district project management business practice, for the execution of FUSRAP. This initiative resulted from the district strategy for implementation of the new Project Management regulation, ER 5-1-11 and continued support of the Chief's Strategic Vision. These documents reinforced the need of team members to transition from a traditional Civil Works project planning and methodology to execution more closely aligned with a military mission. Our METL (Mission Essential Task List) for FUSRAP operations was simple: Focus on the success oriented execution of FUSRAP (Via our Project Management Plans and the intent of Congress), effectively and efficiently meet the challenges associated with a complex HTRW mission (through the integration of Project Management Business Processes and the Strategic Vision), satisfy the customers (in this case HQUSACE, MDNR, USEPA, the St. Louis Oversight Committee, affected property owners and the general public) and further expand the district core competencies. (This experience gives MVS the ability / capability to execute future environmental restoration and complex projects.) These critical tasks are achieved by the accomplishment of subtasks listed in the performance

oriented TAPES used by team members. The end result, our individual subtasks feed the accomplishment of the FUSRAP collective METL tasks - the team is unified. So, what is a project office? It's an arrangement that provides for co-location of a combination of managerial, administrative, construction and technical support services to conduct day to day operations for a project. The offices listed above are physically located on site 100% of the time. In addition to our base expertise, critical functional support is obtained from district team members in PM, ED, RE, CT and OC on an as needed basis. Performing in a virtual environment, they team with members in NWK, LRL and the HTRW Center of Expertise to reach consensus on the task at hand. These personnel literally apply their expertise to resolve site specific issues as they arise and return to their district day to day priorities. The ability of these personnel to seamlessly cross organizational boundaries is priceless. Getting the right talent to the right place at the right time promotes an environment conducive to the achievement of peak performance. What is the value of this arrangement? Simply put, it improves team performance through the effective and efficient use of resources, close proximity of working relationships and the ability to better manage project communications. We see a direct correlation between project performance and the ability to communicate. This was demonstrated through a unified team and MVS leadership buy in of the quality expectations, goals and objectives as outlined in our Project

Management Plans (PMPs). Superior execution of these tenants of Project Management resulted in the team being recognized as the 1998 Project Delivery Team of the Year award. How is it working? Let's face it, the biggest sources of conflict on any job are schedules, priorities and resources. Our "projectized" team is committed to the attainment of project goals and has cohesiveness, common effort and team spirit. We also enjoy high morale as a result of this co-location. It enhances communication and creativity in problem solving among team members. The combination of co-located management, construction, administrative and technical skills greatly reduces the probability of occurrence of schedule slippage, cost escalation, scope growth and competition for in house resources encountered on most projects. Drawing from this wealth of knowledge is critical in the cost reimbursable environment in which FUSRAP operates. Answers to requests for information, technical direction and issue clarification are critical tasks that require timely resolution to maintain cost effectiveness. Literally, each day of indecision costs. With our integrated staff we are able to quickly reach consensus and reduce the turnaround time for products. What's really great about a project office? In our execution of FUSRAP our customers see a unified Corps providing the best personnel and expertise that USACE can bring to the table to accomplish the mission.



# Simulator for river pilots

By Dawn Smith, CO-F

The 21st century is finally catching up with inland mariners in what has

are configured similar to that of an actual towboat and have windows to view the river which is projected



been referred to as the meeting of Mark Twain and Bill Gates. A computerized simulation of some of the most troublesome reaches of the inland waterways has been developed to educate captains in a risk free environment, which had been a risky on-the-job training experience where a "simple" mistake could mean disaster.

The Center For Maritime Education (CME), operated by the Seaman's Church Institute, is the organization making this possible. The facility, which is located in historic Paducah, Kentucky, is situated at the confluence of the Ohio and Tennessee Rivers, 12 miles below the Cumberland River and 25 miles from the Mississippi River. Having been built in 1842, CME occupies the oldest building in downtown Paducah.

The 23,000-square foot, \$4.3 million simulator facility has four interactive wheelhouses which use 39 PCs to produce the imagery and authenticity of control needed for training. Two of the wheelhouses

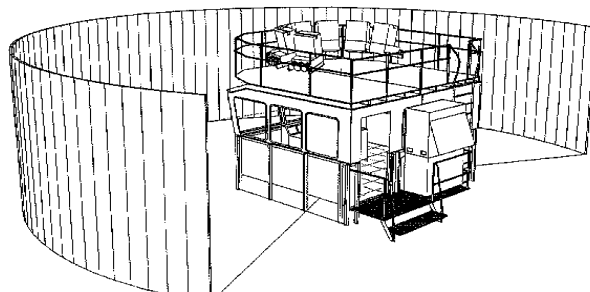
are configured similar to that of an actual towboat and have windows to view the river which is projected onto screens and a large screen television to produce the view through the rear window. The simulator also has the ability to reconstruct all of the variables of a complete marine environment. Variations on time of day, river stages, speed of current, weather conditions and vessel vibrations (from engines) can also be produced as needed.

The two wheelhouses feature panoramic displays of some of the western rivers region's busiest stretches of river, including a 60-mile section of the Ohio River, 16-miles of the Upper Mississippi River, and a 34-mile section of the Lower Mississippi River, with additional areas forthcoming. These views are painstakingly developed using videotaping of the riverbanks and modeling structures, such as the bridges and buildings of cities. The images from the videos

are then placed over the structures that were created for a very realistic view of the cities around the ports.

The simulator is primarily used as an educational tool for new and old pilots alike to show the problem areas in various river ports. With eight out of ten accidents on the river caused by human error, it is believed that the simulators heighten the awareness of what can happen by recreating accidents and then studying what should or could have been done to prevent similar situations in the future.

The simulator can also be used as a tool to study the possible effect changes along the river could have on navigation. This is where the simulator was useful to us in the Regulatory Branch. When the Admiral Casino wanted to move upstream of the Martin Luther King Bridge, a simulation was produced with the Admiral in the proposed location to gauge whether it would interfere with tows trying to navigate through the Eads Bridge. This was another tool to assist in the permitting process of the Admiral's move.



Contact Dawn Smith at (314) 331-8632 for additional information concerning the Center for Maritime Education and the Seaman's Church Institute.





## News Briefs (cont.)

tor display, art/crafts and a fire works display on the evening of the 4th.

### New playground

A new playground system was recently opened at the Spillway Recreation Area just south of the dam. This contemporary playground system is constructed of metal/vinyl with a wood fiber-playing surface. This new facility is disabled accessible and complies with the American with Disabilities Act (ADA).



The new playground complex includes three tunnel slides, two conventional slides, nine decks, two monkey bars, six ladders, four roofs, a suspension bridge, bumper ladder, parallel bars, fire-pole and an overhead glider and includes nearly 6000 square feet of playing surface. A swing set consisting of four conventional swings and one baby swing was installed adjacent to the

new playground system. A similar playground system was installed in the Redman Creek Recreation Area in 1997. These new playgrounds replaced existing deteriorating wood/metal systems that have been in place for over 15 years and is part of a plan to bring existing recreational facilities into compliance with existing safety and disability standards.

### Public meeting

A public meeting was held on 20 May at the visitors center regarding the purchase of easements and land for the FF and D Highway relo-

cation project. Approximately 30 persons attended the meeting conducted by personnel from Real Estate Division and Wappapello Project Office. Information was provided to citizens regarding location of work to be performed, the process for obtaining and appraising easements and land purchases, and the persons who would be contacting affected individuals.

## Lake Shelbyville:

### Safety award

The Corps of Engineers at Lake Shelbyville recently received an Award of Merit from the National Water Safety Congress. We received the award for coordinating the Aqua-fest Water Safety Carnival and Water Safety Messages for Shoppers in 1998.

The award was presented during the International Boating and Water Safety Summit held in Albuquerque, New Mexico. Park Ranger Pam Doty represented Lake Shelbyville at the summit.

In the Water Safety Messages for Shoppers campaign, grocery stores loaned paper bags to the local schools. Students decorated them with water safety messages. The bags were then returned to the stores to be distributed during National Safe Boating Week. Third through sixth graders are involved in this event.

The Aqua-fest Water Safety Carnival is focused on spreading the water safety message in a fun and entertaining way. Aqua-fest will be held this year on June 26 at the Dam West Beach from noon until 4 p.m. Games and activities for all ages will go on during this event.

### This month's test sentence

We're of the opinion that this approach has helped our company grow and expand its markets.

Revision on page 15)

## *Earth Notes*

### Oil contamination

According to NASA, when used motor oil is poured into the ground, it can seep into the groundwater and

contaminate drinking water supplies. A single quart of motor oil can pollute 250,000 gallons of drinking water.



# The bees are back

By Dawn Kovarik, Rend Lake Park Ranger

"Fascinating!" "Awesome!"

"Cool!" "Where's the Queen?"

These are some of the exclamations that are frequently being heard at the Rend Lake Visitor's Center now that the bees are once again inhabitants of the demonstration beehive. Many lessons are learned by simply watching the intricate details of how these social insects interact. Some call it amazing; some call it unbelievable, the truth is it's a lesson in survival and cooperation.

The demonstration beehive was installed in the Visitor Center in April of 1998 and has proved to be as much of a learning experience for the rangers that tend it as it is for the students and visitors who come to observe it. The bees did very well during the first season in their new home inside the Visitor Center, however, in the fall they swarmed to a hive outside of the building, leaving the demonstration hive vacant for the winter months.



Beekeepers were consulted on why the bees moved from their "cushy" home inside the Visitor Center, to the outside home. No logical answer could be found. Maybe the new queen was killed during her "honeymoon" mating flight or maybe the hive failed to raise a queen after the swarm. No one will ever know. However, the move proved to be a blessing in disguise, as it allowed Rangers to clean the hive and prepare the hive for a new colony of bees. The building process is one of the most fascinating processes and visitors enjoy watching the bees' work to create a self-sustaining colony.

One call to the apiary in Georgia and new bees were on their way to Rend Lake. Shipped via the U.S. mail, the bees arrived in the Benton Post Office on the eighth day of April 1999. The postmaster called the Rend Lake Project Office and with concern in his voice said, "We have a delivery that the carrier would rather not take on his rounds in his car." It was the bees!

The 2' x 1' wooden frame, screened in box, housed 2 pounds (approximately 4,000) of lively Italian bees. In the center of the wooden box sat a small metal box, about the size of a ring box. This small box accommodated one queen and a half dozen of her workers. The queen's being separated from the rest of the hive during shipment prevents the bees from establishing a "hive" within the wooden transportation box. If this were to happen, it would be very difficult to move the bees to the demonstration hive upon arrival. However, with the queen confined to the small

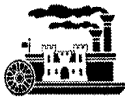
metal box, a "hive" has not been established and the bees have not "bonded" with the queen. Confused and unsettled, the bees have nothing to protect, thus pose no threat to the intruder. This confusion makes it



possible to remove the queen box from the cluster of worker bees, without fear of being stung.

Once the queen and her small metal "temporary home" have been placed in the demonstration hive, the end cap is removed which allowed the queen to exit the box and establish herself in the hive. In the meantime, the remaining worker bees were released from the shipping box and allowed to be lured into the hive by pheromones, released by the queen. Some of the less persuasive bees were allowed to fly freely overnight until they finally settled into the hive, where the queen had established herself. At this point, the worker bees had "bonded" with the queen and now had something to protect. At this point caution was used, as the worker bees were more prone to sting anyone making close contact with the hive.

(Continued on page 13)



# Cottonmouth, not as aggressive as you think

**This article is reproduced with the permission of the Natural History Survey Magazine.**

By J. Whitfield Gibbons and Michael E. Dorcas

Pushing aside the large fan of a palmetto and stepping from the dark, muddy edge of the cypress swamp into the even darker shallow water, we headed toward a fallen log where a three-foot-long, muddy brown cottonmouth was coiled. On this cool spring day, it had picked a sunny, dry spot on which to warm itself.

While Mike, a little ways away, held the stopwatch and recorded data, Whit stepped onto the huge cypress log where the cottonmouth was resting. Its tongue flicked out inquiringly as Whit inched closer, and by the time the side of his boot nudged against the big snake's out coil, the animal's mouth was wide open, exposing the white interior that earned the species its name. The male (it was too large to be a female) held its ground and exposed its fangs; its head and body expanded. It now vibrated its tail in a formidable effort to scare us away.

Our behavior was not entirely foolhardy, as we were wearing snake-proof boots (at least, that's what the label said). We were testing our theory that venomous snakes bite people only as a last resort - once they have determined that an easy escape is not possible or that the intruder cannot be held off by a threat display. The idea was put most succinctly in the 1950s by the late herpetologist Clifford Pope: "Snakes are first

cowards, then bluffers, and last of all warriors." Our study was designed to determine at what point the warrior mode comes into play. We'd tested more than forty cottonmouths in the swamps and wetlands of South Carolina's Savannah River, and they had bitten only when stepped on or picked up.

After twenty seconds, Mike signaled and Whit nudged the snake harder with his boot. It closed its mouth and attempted to escape by slithering partway into the water. Whit placed his boot firmly on the rear half of its body, holding it on the log. The snake turned back to face the boot and reopened its mouth, but still did not strike. Again twenty seconds elapsed. We could now detect the unmistakable musk of an alarmed cottonmouth; some people say the smell is like cucumbers. Only when Whit grasped the snake midbody with a leather glove had the cottonmouth finally had enough. The fangs sank deep into the glove, and venom dripped out of the animal's mouth. (The glove, however, was not on Whit's hand, but had been fitted onto the open end of a pair of "snake tongs" some three and a half feet long.)

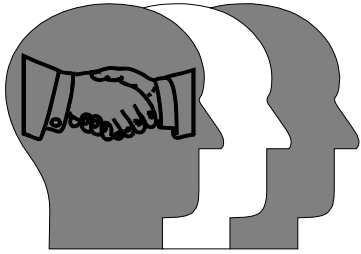
About 10 percent of the snakes we've tested have bitten the boot after being stepped on; only 40 percent have struck when picked up with "the hand." Understanding how a cottonmouth protects itself requires adopting the point of view of the snake: What if you were only a couple of inches tall and a towering beast were approaching? Striking is a last resort. To begin with, by challenging a much larger enemy, the snake is potentially exposing it-

self to a great danger. It also needs to conserve its precious venom. Composed of complex proteins that require time and energy to produce, venom is vital for capturing prey.

When cottonmouths bite people defensively, they often inject less venom than they have available. The importance of conserving venom is indicated by laboratory studies showing a high proportion of so-called dry bites, in which little or no venom is injected. Experiments have demonstrated that venomous snakes can control the amount of venom injected during a strike, using only what is necessary to subdue prey. It would seem that natural selection should therefore favor those snakes that use venom only as a last resort for defense.

No reliable snakebite statistics are available to confirm the exact number of bites cottonmouths inflict each year, but the estimated numbers are much lower than for copperheads or rattlesnakes. In the United States, an average of fewer than ten people die each year from the bites of all native snakes. So far, our results show that we should not be so quick to indict cottonmouths as aggressive enemies prepared to attack.

*J. Whitfield Gibbons is a University of Georgia professor of ecology at the Savannah River Ecology Laboratory (SREL). Michael E. Dorcas is a postdoctoral fellow at SREL.*



## **E E O matters**

### **Unlawful questions asked of 38 percent of job seekers**

More than one-third of some 400 job seekers believe they were asked an unlawful question during interviews with hiring officials, a new survey found.

Job seekers should always be conscious about supplying information that can suggest age, sex or family background during the interview process. Bernard Haldane, a New York-based career management firm, sponsored the survey, which received approximately 410 responses from more than 1,000 individuals.

Questions that may be unlawful under Title VII of the 1964 Civil

Rights Acts include: "is that your maiden name?", "are you a U.S. citizen?", and "are you planning a family?" Also be aware of legitimate questions which are designed to reveal potentially discriminatory information. Questions like "how late can you work?" can generate a response that reveals personal commitments such as children who need to be picked up from daycare.

### **Workforce age diversity crucial for employers**

To be competitive in the marketplace, employers must learn to effectively manage an age diverse staff, an age-diversity consultant said.

By the year 2005, the number of American workers 55 years and older likely will be 22.2 million, or 25 percent of the workforce in the United States, noted Sheldon Steinhauser, a Denver-based consultant on employment age-bias issues and workplace diversity management. In the U.S., the median age of a worker was 38 in 1994; by 2005, that median is expected to be age 41.

"Managers need to accept this reality and deal with it productively in order to remain ahead of the game," Steinhauser said. "Besides, in these times of record low unemployment and a shortage of qualified employees, older workers represent a substantial, under-utilized resource of potentially exemplary and responsible employees," he added. Managers need to think of age differences as a major component of their overall diversity programs

## **LM has started LAIET inspections**

The Logistics Management Office has started their yearly LAIET inspections. These inspections are mandatory by regulation and have been conducted since 1990. LAIET is a term that has been borrowed from the Army. It stands for Logistics Assistance Inspection Evaluation Team.

The purpose for the visits is just what the title implies. A team of Logistics personnel will visit each field site to offer assistance, inspect and evaluate the site on areas of logistical concerns. During the visits the following areas will be reviewed

and evaluated: receiving procedures and records, property and supply procurement procedures and records, property inventories and control, which includes durable and expendable, excess property, warehousing, equipment maintenance plans, programs and records, equipment utilization, vehicle maintenance records and utilization, and facilities and space utilization.

Once the inspections are complete, a written report is done and forwarded to the Project Manager at the field site and the Chief of Construction/Operations. This year the reports will be forwarded to the

Commander for his review. This will provide him the information and status necessary for him to evaluate his Logistics programs.

These reports identify areas that need improvement and celebrate areas that exceed requirements. However, the most valuable and important part of the inspection is the one-on-one contact that Logistics has with their customers. This is the time that real problems and ideas are conveyed so that assistance can be given. So, if you see a team of Logistics people coming to your site, remember they are there not only to evaluate you, but to offer assistance.





## Coming Lake Events

### Carlyle Lake

June 19-20	National Regattas of Flying Scotts
July 3	Fireworks Spectacular
July 17	Kaskaskia Duck Race
Aug. 11-12	Lightning Regatta of North America
Sept. 11-12	Whale of a Sail Regatta
Sept. 18	Carlyle Lake Cleanup
Oct. 22-23	Haunted Trail
Nov. 7	Youth Pheasant Hunt
Dec. 3	Christmas USA Visitor Center Lighting

### Lake Shelbyville

June 24	Boater Safety Course
June 26	Aquafest Water Safety Carnival
July 2	Dog-O-Rama Dog Show
July 4	Fireworks Extravaganza
July 13-15	Environmental Educator Workshop
Oct. 7	Eco Meet

### Rend Lake

May 29 - Sept. 4	Environmental Science Series and Sunset Series of Programs
------------------	--

July 3-4	Taste of Freedom Festival and Fireworks
July 24-25	Hunter Safety Course
Aug. 7	Summer Beach Blast
Sept. 11	Rend Lake Cleanup

### Wappapello Lake

June 13	9th Annual Disabled Persons Fishing Day
July 3-4	Waterfest '99
Sept. 18-19	8th Annual Old Greenville Days
Nov. 26-Dec. 25	7th Annual Festival of Light Christmas Auto Tour

### Mark Twain Lake

June 12	Kids Fishing Day
July 2-4	Mark Twain Lake Rodeo
July 10-11	Primitive Artifacts Weekend
July 11	Mark Twain Lake Waterfest
Aug. 14-15	19th Annual Salt River Folklife Festival
Sept. 4-5	North American Bullriding Assoc. World Championship Finals
Sept. 24	Environmental Education Fair
Oct. 2-3	Missouri Mule Days
Oct. 9	An Adventure in Astronomy

## Addendum to article on Owen Dutt, River Navigator (May ESPRIT)

In addition to the Upper Mississippi and Owen Dutt, one other of the 14 American Heritage Rivers has their "River Navigator" sponsored by the Corps of Engineers. The river is the New River. The Navigator is Ben Borda from the Huntington District.

The remaining 12 River Navigators are all federal employees from other agencies.

### Quote of the month

Let him take comfort from the fact that whatever he does in any fathering situation has a fifty percent chance of being right.

Bill Cosby

## Bees (continued)

Immediately, upon entry into the hive, the worker bees began preparing cells in which the queen would soon begin to begin lay eggs. From these eggs, approximately 21 days later, full-size adult worker bees will hatch. These worker bees will replace the bees that now inhabit the hive. The average life span of a worker bee, in summer months, is 40 days. None will die of old age, the majority will work themselves to death and many will die from accidents or sacrifice their lives to protect the hive.

We, at Rend Lake invite you to plan a trip to the Visitor Center. "BEE" sure to stop and monitor the progress of the Demonstration Beehive.



---

## To your health

---

### Diverticular disease on the rise Potassium rich foods lower stroke risk

When people don't get enough fiber in their diets, waste material being processed by the colon becomes too compact.

Intestinal muscles have to work very hard, and the strain puts pressure on the walls of the intestine. Sometimes the pressure causes the lining of the intestine to bulge out in small pockets.

The condition is called diverticulosis, taken from the Latin phrase meaning "detour from the main path." By the time North Americans reach age 60, half of them have such detours.

Most have no problem with them, but in about 20 percent of cases, a diverticular pocket ruptures, causing infection, acute abdominal pain, fever and nausea.

At this point diverticulosis becomes diverticulitis, say doctors at Tufts University. Treatment includes antibiotics and a liquid diet to give the system a rest.

Diverticulitis is caused by eating mainly processed, low-fiber foods. It can be prevented by eating foods with higher fiber content and drinking eight cups of water a day.

High-fiber foods include fruits like pears, apples, oranges and bananas; vegetables like baked potatoes with skin, and cooked peas, spinach, brussels sprouts and broccoli.

A cup of raisin bran has eight grams of fiber, but other cereals have less. Legumes like lentils, black beans and kidney beans are loaded.

If you are an average American, you should eat twice as much fiber as you do now, or 25 grams per day.

The National Institutes of Health say that no food is entirely off limits to people with diverticular disease. It is, however, wise to avoid foods with indigestible particles such as corn, nuts, and the small seeds in tomatoes and strawberries.

Eating bananas, apricots, cantaloupes and other potassium-rich foods can lower your risk of stroke.

Doctors at Harvard Medical School say potassium dilates blood vessels which results in people having lower blood pressure. That is particularly important for people whose blood pressure is already high, but potassium gives a health boost to all.

From 1986 to 1994, the Harvard study followed male health professionals ages 40 to 75 who had no history of heart disease, diabetes or stroke. Those in the top fifth of potassium intake were 38 percent less likely to have a stroke than those in the bottom fifth.

Because the study is based on reports of what people ate, it can only uncover an association between a high potassium diet and stroke risk. It is possible that other chemicals in fruits and vegetables are responsible for part of the benefits.

Other foods with high levels of potassium include kidney beans, oranges, pears, potatoes, spinach and tomatoes.

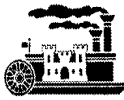
Whether or not you have high blood pressure, the study reinforces medical advice to eat fruits and vegetables. They could prolong your life and help to stave off a devastating stroke.

### Heartburn, cancer linked

People who have frequent heartburn and acid reflux run a higher risk for cancer of the esophagus. Taking antacids won't help, a study finds.

Swedish research published in the New England Journal of Medicine indicates that those with severe symptoms should be watched for signs of cancer.

The study found the risk of cancer was almost eight times higher among people who had heartburn, regurgitation or both at least once a week. Acid reflux at night was associated with a risk nearly 11 times higher. Over the last 20 years esophageal cancer has increased significantly among white men, but researchers don't know why.



---

## Retiree Review

---

May 20th was another great day in Paradise. The weather was beautiful and the retirees came out in strength. Some of the "not so regulars" even made it for a second time in a row. There was some discussion about what caused the large turnout. Everyone agreed that all the reasons mentioned were valid, but the one main reason was the anticipated presentation by the "World Traveler," Mike Houser.

Mike took a two week trip to the Siberian region of Russia in August 1996. While there, he took a number of slide pictures and he shared them with the retirees. Mike had participated in the student exchange program, where students from European countries come and spend a year in the United States attending our schools. In return, the United States sends a student to Europe for the same period of time. Mike visited one of the exchange students that he had previously in is home. The student and her family provided an in-house tour guide for Mike and his wife.

Mike's presentation was about this trip, with great pictures and dialog. He provided a wealth of information about the country and its people. The places and people that Mike visited and saw reminded him a lot of what this country had years ago - a lot of opportunity and people working hard to provide for themselves and their families. There was a considerable amount of interest on the part of the retirees. They all thanked him for sharing his experiences with them.

The retirees were reminded that there will be a Change of Command on July 30th at the Regal Riverfront at about 10:30. They should check with the ESPRIT for more details.

Charlie Denzel reported that he had written his state representative about the House Bill 59, dealing with

eliminating state income taxes on federal annuities. Charlie received a response indicating that the bill had no chance of passage this session, but would be given consideration again next session.

Bob Lutz mentioned the Division Golf Tournament was scheduled for June 17 & 18 at Rend Lake. Applications will be accepted until June 5th. He hoped there would be a good turnout. Incidentally, Bob was accompanied by his wife and their charming granddaughter Julie.

Pete Puricelli said that he was asked to mention that two longtime employees were retiring: Emmett Hahn, from the Readiness Office (previously Emergency Operations), and Joan Schick, from the Contracting Division. Pete had hand outs with the particulars for anyone interested. Pete also had a current listing of retirees, for anyone interested.

John Jansen mentioned that he also had written his state representative about House Bill 59. His response was very similar to what Charlie Denzel received. John said that it doesn't hurt to write your elected officials and let them know your feelings on the matter.

The Senior Retiree retiring in the 90s was Charlie Denzel. Gee, he always wins. Anyway, Charlie did accept the accolade with grace and humility.

Since most of the after lunch time was taken up with the presentation by Mike Houser, the other nonsense stuff was dispensed with. Let's mark our calendars for June 18th at 11 a.m. at the Salad Bowl for lunch with the retirees.

**Editor's Note:** We got a note from one of our oldest, if not THE oldest, retirees, William Haynes. He retired from L&D 25 in July 1960. He's still goin' strong. We hope he gets to read many many more ESPRITs.

---

## Be sure to stretch

Stretching is part of an exercise program people are likely to skip. But it causes ligaments, tendons and muscles to lengthen. The benefits: maintains flexibility, eases soreness, and improves recovery time.

New research suggests that stretching combined with weight training makes you stronger faster than weight training alone.

### Sentence revision

We believe this approach has helped us expand our markets. *Traps avoided:* Prepositional phrase, *of the opinion*; "doubles," *grow and expand*.

# Role of fathers in parenting becomes clearer

As a father, you probably always knew that your role in parenting was important. Most fathers do. Still, it has not been as clearly defined as a mother's side of parenting.

That is changing. Researchers at Pennsylvania State University and the University of California's Riverside Center for Family Studies are mapping out the father-child bond and how it differs from the bond between mother and child.

Their work reveals a modern concept of paternity, one which old assumptions are cast in a different light. Fatherhood turns out to be a complex role with huge consequences for the emotional and intellectual growth of children.

Fathers parent differently from mothers. They play more with their kids. Their actions are more physical and less intimate with more of the reliance on humor and excitement. Doctors say a father's more playful interactive style is important in teaching a child self-control. And these interactions ap-

pear to be central to the child's ability to maintain strong, fulfilling social relationships in later years.

Researchers quoted in *Psychology Today* say that fatherhood at the millennium may be tougher than at any other time in recent history. There are few role models, but the opportunities have never been greater.

Doctors at Santa Clara University give this advice:

- \* Be involved from the beginning. Create times and activities in which you care for the baby entirely alone.

- \* Tell how you feel. If you are fearful, frustrated or jealous of the time your wife spends with the baby, discuss these

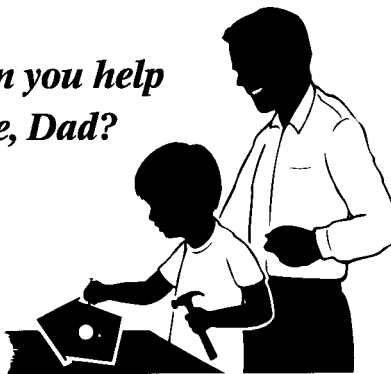
feelings with your wife.

- \* Tune in to kids. Don't rely on their mother to read what a child wants or needs.

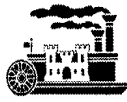
- \* Accept your partner's parenting style. It may be different from yours, but that doesn't make it wrong.

- \* Have patience. Kids might not immediately respond to a dad who "suddenly" wants to be more involved.

*Can you help me, Dad?*







***ESPRIT***